UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,322	08/03/2006	Kazutoshi Kichikawa	U 016424-4	5763

140 7590 12/10/2007

LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER	
RUIZ, ANGELICA	
ART UNIT	PAPER NUMBER
2169	
MAIL DATE	DELIVERY MODE
12/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,322	KICHIKAWA ET AL.	
	Examiner	Art Unit	
	Angelica Ruiz	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/03/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-13 are pending.

Specification

2. The specification is objected because of improper numbering. Numbering on pages 22-1 to 22-12 including numbers 1-117 should be renumbered to comply with the requirements of 37 CFR 1.52. Proper correction is required.

> **37 CFR 1.52. Language, paper, writing, margins, compact disc specifications.**
> (6) Other than in a reissue application or reexamination proceeding, the paragraphs of the specification, other than in the claims or abstract, may be numbered at the time the application is filed, and should be individually and consecutively numbered using Arabic numerals, so as to unambiguously identify each paragraph. The number should consist **of at least four numerals** enclosed in square brackets, including leading zeros **(e.g., [0001]).** The numbers and enclosing brackets should appear to the right of the left margin as the first item in each paragraph, before the first word of the paragraph, and should be highlighted in bold.

3. The abstract of the disclosure is objected to because all the numbers and enclosing brackets (e.g., 100) this reference to figures in the abstract is improper. Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The

disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The spacing of the lines of the specification is such as to make reading difficult. New application papers with lines 1½ or double spaced on good quality paper are required.

Claim Objections

6. Claims 1-11 are objected to because of the following informalities: all the numbers and enclosing brackets (e.g., (100)) citation to figures in the claims are improper. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. Claims 10 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 and 13 recite, "information processing apparatus (100) according to Claim 1 or a computer-readable recording medium recording said program"; "or" renders the claim indefinite. Proper correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 3-6, 9, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kishimoto et al. (2002/00138290 A1),** in view **of Clark et al. (2005/0050054 A1).**

As per Claim 1, Kishimoto discloses:

- An information processing apparatus (100) comprising:

(Title, "Information-processing apparatus and information –processing method".)

- a data storage unit (110) for storing data files;

(Par [0009], lines 3-4, "storage means for storing application programs and data files") and (Par [0104], lines 5-6, "storage unit 136").

- ***a memory (130) for spreading data files, stored in the data storage unit, as necessary;***

(Par [0072], "It should be noted that, when the information-processing apparatus ... wherein an **application program and data stored in the memory card 70 are automatically expanded** in the D-RAM 24.") and (Par [0003], "In addition, application software used in an information-processing apparatus is presented to the user by using media such as a disc or a memory card or downloaded to the apparatus through a communication line.") "expanded" being the "spreading" as claimed.

- a user management unit (140), preventing multiple logon by a plurality of users by prohibiting, after a predetermined user has performed a logon

procedure, logon procedures by other users until a logoff procedure concerning said predetermined user is performed (1);

(Par [0105], "The server controller 131 is a member for controlling server components for rendering services to download application programs to the information-processing apparatus ...the server controller 131 also executes various kinds of **management such as management/cataloging of users**...") and (Par[0149], "... transmits **authentication data** including the password to the server 130. In addition to the password, the authentication data includes the serial ID of the information-processing apparatus 1 and the **log-in** ID. The authentication data is information for the server 130 **authenticating the user**.")

- ***an spreading/storing unit (120), executing, based on an operation of a user who is logged on, a file spreading process of spreading a predetermined data file, stored in the data storage unit (110), onto the memory (130),***

(Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user.") and (Par [0057], "FIG. 2 ... As shown in the figure, the information-processing apparatus 1 includes internal core members such as a system controller 21, a CPU (Central Processing Unit) 22, a flash **ROM (Read-Only Memory)** 23 and a D-**RAM (Dynamic RAM)** 24. In addition, the information-processing apparatus 1 also includes an o**peration unit 35**, a display

control unit 27 and a display unit 2, which each serve as a **basic interface with the user**.").

- and a file storing process of storing a predetermined data file, spread on the memory (130), into the data storage unit (110);

(Par [0016], "...the information communication system automatically saves an application program or a **data file stored in the storage means** to the server or an external recording medium on the communication network in order to allocate a free storage...").

- a program executing unit (150), executing,

(Par [0144], "At the next step F303, the CPU 22 **executes the application program** to carry out processing based on the program.").

- based on an operation of a logged-on user, a predetermined application program and a process of preparing a new data file on the memory (130) or a renewing process on an existing data file spread on the memory (130);

(Par [0138], "The application program AP3 and the **data file** DT3 thereof are **saved in the saved-information storage unit 136.** As a result, since empty areas are created in the D-RAM 24 as shown in FIG. 9, the **application program** AP-a and the **data file** ... storage areas.") and (Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user.").

- a saving unit (160), executing, when a specific user executes the logoff procedure(2), a saving object recognizing process of recognizing, from

among data files stored in the data storage unit (110), all or a predetermined Portion of data files prepared or renewed based on tasks by the specific user as a saving object file or files,

(Par [0114] The **saved-information storage unit** 136 is a storage member which is used for saving data from the DRAM 24 employed in the information-processing apparatus 1 in accordance with a request made by the information-processing apparatus 1 ....")

- a saving process of copying and thereby saving the saving object file or files into an external storage device (300) via a network (200),

(Abstract, "...automatically transfers application programs and data files from the storage means to an external recording medium such as the server itself...") and (Par [0016], "...an external recording medium on the communication network...")

- a deleting process of deleting the saving object file or files stored in the data storage unit (110), a management information preparing process of preparing management information necessary for copying and restoring the saving object file or files, saved in the external storage device (300), into the data storage unit (110),

(Abstract and Claim 4," The information-processing apparatus according to claim 1, wherein if an **application program or a data file** saved in said external recording medium exists at completion of use ... to delete said active application program from said storage means in order to **restore said saved application program or saved**

said data file from said external recording medium to said storage means by way of said communication means.").

- and a management information storing process of storing the prepared management information into an external storage location (400);

(Abstract and Claim 2, "...activation-history **management means for storing information** on an activation history for each application program and for updating said information on an activation history for a specific application program upon activation of said specific application program by said processing means; wherein said control means selects an application program **to be saved to said external recording medium** on the basis of said information on an activation history.").

- ***and a restoring unit (170), executing, as necessary after the specific user executes the logon procedure, a restoring process of referencing the management information and thereby copying and restoring the saving object file or files, saved in the external storage device (300), into the data storage unit (110).***

(Par [0175], "In the mean time, the processing carried out by the server controller 131 goes on to a **step F115 to form a judgment as to whether or not a request for restoration** of saved data has been received from the information processing apparatus 1...") and (Par [0017], "In addition, if an **application program or a data file** saved in the external recording medium exists at completion of use of an active application program downloaded from the external server or at the time when the user finishes using it and carries out predetermined operation, the **application program is deleted**

from the storage means in order to **restore the saved application program or the saved data file** from the external recording medium to the **storage means and reestablish** a state prior to downloading.") and (Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user."). "restoring unit" being also the "saved-information storage unit". Restoring is done in the mentioned unit also.

However Kishimoto does not disclose the underlined claimed features:

- a logoff procedure concerning said predetermined user is performed *(1);*

- when a specific user executes the logoff procedure *(2)*

On the other hand Clark discloses the claimed features as follow:

- a logoff procedure concerning said predetermined user is performed (1);

- when a specific user executes the logoff procedure (2)

(Par [0637], "In one embodiment, the synchronization service does not provide its own ... This utility makes it very easy to configure the **Windows Scheduler to run synchronization either on schedule or in response to events such as user logon or logoff.").**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark into the method of Kishimoto to take advantage of executing a specific procedure after logging off. The modification would have been obvious because one of the ordinary skills in the art

would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus.

As per Claim 3, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- wherein the saving unit (160) recognizes a data file that is stored in a priorly determined saving object folder as being the saving object file.

(Par [0130], "Then, the information-processing apparatus 1 requests the server 130 to transmit the application program and the data file which have been saved in **the saved-information storage unit** 136, storing the program and the file into the D-RAM 24. That is to say**, a state prior** to the downloading is restored. At that time, the save flag of the application program is reset to 0 in the application-history table.").

As per Claim 4, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- wherein the saving unit (160) recognizes a data file, having a file name with a priorly determined extension attached thereto, as being the saving object file.

(Abstract and Claim 12) and (Par [0130], "Then, the information-processing apparatus 1 requests the server 130 to transmit the application program and the data file which have been saved in **the saved-information storage unit** 136, storing the program and the file into the D-RAM 24. That is to say**, a state prior** to ....") and (Par [0127], "After application programs and **the data files thereof stored** in the D-RAM 24 are saved into ... an activation count, a save flag, a temporary attribute and an address as an entry for

the downloaded application program to the activation-history table. The OS sets the activation count as well as the temporary attribute at 1 and then puts the application program in an activatable state.").

As per Claim 5, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- ***wherein the saving unit (160), in executing the management information storing process, stores the management information into a removable, portable information recording medium (400), and the restoring unit (170), in executing the restoring process, references the management information stored in the portable information recording medium (400).***

(Par [0044], "It should be noted that the scope of the present invention is not limited to a **portable information-processing apparatus**. Instead, the present invention can be applied to **information-processing apparatuses of all types represented mainly by the personal computer**.") and (Par [0017], "In addition, if an application program or a **data file saved in the external recording medium** ...").

As per Claim 6, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- ***wherein address information on the external storage device that is to be a saving destination of the saving object file is used as the management information.***

(Abstract and Claim 6, "...saving request from said information apparatus, said control

means stores an application program or a data file transmitted from said information processing apparatus in said saved-data storage means as saved data.") and (Par [0122], "The activation count represents the number of times the application program has been activated. The save flag indicates whether or not the application program has been saved in the **saved-information storage unit 136** employed in the server 130 in processing described later...The **address** indicates a location...").

As per Claim 9, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- wherein in executing the deleting process, the saving unit (160) performs a process of deleting even a saving object file that is spread in the memory.

(Abstract and Claim 4, " The information-processing apparatus according to claim 1, wherein if an **application program or a data file** saved in said external recording medium exists at completion of use **... to delete** said active application program from said storage means in order to **restore said saved application program or saved said data file** from said external recording medium to said storage means by way of said communication means.").

As per Claim 10, the rejection of claim 1 is incorporated and further Kishimoto discloses:

A computer program that makes a computer function as the information processing apparatus (100) according to Claim 1 or a computer-readable recording medium recording said program.

(Par [0043], "The information-processing apparatus 1 is a compact, light and portable apparatus functioning as the so called PDA. A memory card 70 is mounted on the **information-processing apparatus** 1 **as a recording medium**. Data can be recorded and played back into and from the memory card 70. ") and (Par [0157], "In the mean time, the flow of the processing carried out by the CPU 22 goes on to a step F208 of the flowchart shown in FIG. 12 to form a judgment as to whether or not the total size of the selected application program to be downloaded and a data file relevant to the program has been received from ...").

As per Claim 13, the rejection of claim 11 is incorporated and further Kishimoto discloses:

- ***A computer program that makes a computer execute the saving step and the restoring step of the security ensuring method according to Claim 11 or a computer-readable recording medium recording said program.***

(Par [0043], "The information-processing apparatus 1 is a compact, light and portable apparatus functioning as the so called PDA. A memory card 70 is mounted on the **information-processing apparatus** 1 **as a recording medium**. Data can be recorded and played back into and from the memory card 70. ") and (Par [0157], "In the mean time, the flow of the processing carried out by the CPU 22 goes on to a step F208 of the flowchart shown in FIG. 12 to form a judgment as to whether or not the total size of the

selected application program to be downloaded and a data file relevant to the program has been received from ...").

10. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kishimoto et al. (2002/00138290 A1),** in view **of Clark et al. (2005/0050054 A1)** and **Yamamoto et al (2005/0102491 A1).**

As per Claim 2, the rejection of claim 1 is incorporated and further Kishimoto does not disclose:

- wherein the restoring unit (170) executes a preliminary restoring process of restoring a hierarchical structure of data files at a time of storage, and a main restoring process of restoring a specific data file selected from within the hierarchical structure restored by the preliminary restoring process.

On the other hand Yamamoto discloses the claimed features as follow:

- wherein the restoring unit (170) executes a preliminary restoring process

(Par [0018], "Moreover, ... execution of a call instruction for calling the predetermined function, and when the judgment by the decompression judgment unit is affirmative, the **restore unit** may decompress and then restore to the register the data saved in the stack memory when **execution of a return instruction for terminating the call of the predetermined function**.").

- of restoring a hierarchical structure of data files at a time of storage, and a main restoring process of restoring a specific data file selected from within the

hierarchical structure restored by the preliminary restoring process.

(Par [0030] Here, the judgment unit may include: a detection subunit operable to detect a stack access function in the input program, the stack access function referring to the **stack memory in which the data** in the register have been saved, and the judgment unit may judge that the data retained in the register should be saved to the stack memory without being compressed in response to call of any of the stack access function and functions that position higher order than the stack access function in a hierarchical structure of functions included in the input program.") and (Par [0031], "With the stated construction, it becomes possible to exclude every function whose any lower-order function in its hierarchical structure is required to access the stack memory, from a target function whose guaranteed registers are to be compressed.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark and Yamamoto into the method of Kishimoto to take advantage of executing a specific procedure after logging off and taking into account a hierarchical structure . The modification would have been obvious because one of the ordinary skills in the art would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus and use the hierarchical order.

As per Claim 12, the rejection of claim 11 is incorporated and further Kishimoto discloses:

- wherein the restoring step comprises a preliminary restoring step of

restoring a hierarchical structure of data files at a time of storage, and a main restoring step of restoring a specific data file selected from within the hierarchical structure restored by the preliminary restoring step.

On the other hand Yamamoto discloses the claimed features as follow:

- wherein the restoring unit (170) executes a preliminary restoring process

(Par [0018], "Moreover, ... execution of a call instruction for calling the predetermined function, and when the judgment by the decompression judgment unit is affirmative, the **restore unit** may decompress and then restore to the register the data saved in the stack memory when **execution of a return instruction for terminating the call of the predetermined function**.").

- of restoring a hierarchical structure of data files at a time of storage, and a main restoring process of restoring a specific data file selected from within the hierarchical structure restored by the preliminary restoring process.

(Par [0030] Here, the judgment unit may include: a detection subunit operable to detect a stack access function in the input program, the stack access function referring to the **stack memory in which the data** in the register have been saved, and the judgment unit may judge that the data retained in the register should be saved to the stack memory without being compressed in response to call of any of the stack access function and functions that position higher order than the stack access function in a hierarchical structure of functions included in the input program.") and (Par [0031], "With the stated construction, it becomes possible to exclude every function whose any lower-

order function in its hierarchical structure is required to access the stack memory, from a target function whose guaranteed registers are to be compressed.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark and Yamamoto into the method of Kishimoto to take advantage of executing a specific procedure after logging off and taking into account a hierarchical structure . The modification would have been obvious because one of the ordinary skills in the art would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus and use the hierarchical order.

11. Claims 7, 8, and 11are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kishimoto et al. (2002/00138290 A1),** in view **of Clark et al. (2005/0050054 A1)** and **Yano et al (2002/0138504 A1).**

As per Claim 7, the rejection of claim 1 is incorporated and further Kishimoto discloses:

- ***wherein the saving unit (160) executes, in executing the saving process, a process of dividing a saving object file into a plurality of division files based on a predetermined dividing method and saving the individual division files respectively into mutually different storage devices (310, 320, 330) and has a function of preparing management information that includes information indicating the predetermined dividing method, and the restoring unit (170) restores the saving object***

file based on the information indicating the predetermined dividing method that is included in the management information.

(Par [0104], "FIG. 6 ... **saved-information storage unit** 136.") and (Par [0086], "Application software is **executed under basic operations** of such an OS configuration.").

However neither Kishimoto not Clark disclose the underlined features.

On the other hand Yano discloses the claimed features as follow:

a process of dividing a saving object file into a plurality of division files based on a predetermined dividing method and saving the individual division files respectively into mutually different storage devices (310, 320, 330) and has a function of preparing management information that includes information indicating the predetermined dividing method, and the restoring unit (170) restores the saving object file based on the information indicating the predetermined dividing method that is included in the management information.

(Abstract, "A distributed data archive device (1) is placed on an arbitrary location on a network (3) so that data can be saved and extracted. During data saving, a **to-be-saved data file** (F1) is given to the archive device (1), and a **division/encryption** means (13) ... A data **management means** (15) forms management data that shows a **division/encryption method** and a **depository-destination** data server, and records it **onto a portable recording medium** (10) during the data saving. ... the **divided files** are extracted from the depository destinations, and are reconstituted into the original data file (F1) by a decryption/integration means (14).") and (Par [0015], "FIG. 5 shows

an example in which **save-destination information** is added to each divided file to be retained in a data server.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark and Yano into the method of Kishimoto to take advantage of executing a specific procedure after logging off and use a dividing process . The modification would have been obvious because one of the ordinary skills in the art would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus and divide the files so they spread evenly on its destination.

As per Claim 8, the rejection of claim 1 is incorporated and further Kishimoto discloses:

> ***Wherein the saving unit (160) executes, in executing the saving process, a process of saving a saving object file into the external storage device (300) upon encrypting the file based on a predetermined encrypting method and has a function of preparing management information that includes information indicating the predetermined encrypting method, and the restoring unit (170) restores the saving object file by executing a decrypting process based on the information indicating the predetermined encrypting method that is included in the management information.***

(Par [0104], "FIG. 6 ... **saved-information storage unit** 136.") and (Par [0086],"Application software is **executed under basic operations** of such an OS configuration.").

However neither Kishimoto not Clark disclose the "encrypting and decrypting"

On the other hand **Yano** discloses the claimed features as follow:

> upon encrypting the file based on a predetermined encrypting method and has a function of preparing management information that includes information indicating the predetermined encrypting method, and the restoring unit (170) restores the saving object file by executing a decrypting process based on the information indicating the predetermined encrypting method that is included in the management information.

(Abstract, "A distributed data archive device (1) is placed on an arbitrary location on a network (3) so that data can be saved and extracted. During data saving, a to-be-saved data file (F1) is given to the archive device (1), and a division/encryption means (13) carries out division/encryption, and individual divided files are distributed and saved onto data servers (2a, 2b, 2c) by a network communication means (16). A data management means (15) forms management data that shows a division/encryption method and a depository-destination data server, and records it onto a portable recording medium (10) during the data saving. During data extraction, the portable recording medium (10) is connected to an arbitrary archive device (1), and the management data is read. Based on this management data, the divided files are extracted from the depository destinations, and are reconstituted into the original data file (F1) by a decryption/integration means (14).")

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark and Yano into the

method of Kishimoto to take advantage of executing a specific procedure after logging off and use a dividing process . The modification would have been obvious because one of the ordinary skills in the art would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus and divide the files so they spread evenly on its destination.

As per Claim 11, Kishimoto discloses:

A method for ensuring security of data according to each individual user when an information processing device (100),

-comprising: a data storage unit (110) for storing data files;

(Par [0009], lines 3-4, "storage means for storing application programs and data files") and (Par [0104], lines 5-6, "storage unit 136").

- a memory (130) for spreading a data file, stored in the data storage unit, as necessary;

(Par [0072], "It should be noted that, when the information-processing apparatus ... wherein an **application program and data stored in the memory card 70 are automatically expanded** in the D-RAM 24.") and (Par [0003], "In addition, application software used in an information-processing apparatus is presented to the user by using media such as a disc or a memory card or downloaded to the apparatus through a communication line.") "expanded" being the "spreading" as claimed.

- a user management unit (140), preventing multiple logon by a plurality of users by prohibiting, after a predetermined user has performed a logon

procedure, logon procedures by other users until a logoff procedure concerning said predetermined user is performed;

(Par [0105], "The server controller 131 is a member for controlling server components for rendering services to download application programs to the information-processing apparatus ...the server controller 131 also executes various kinds of **management such as management/cataloging of users**...") and (Par[0149], "... transmits **authentication data** including the password to the server 130. In addition to the password, the authentication data includes the serial ID of the information-processing apparatus 1 and the **log-in** ID. The authentication data is information for the server 130 **authenticating the user**.")

- a spreading/storing unit (120), executing, based on an operation of a user who is logged on, a file spreading process of spreading a predetermined data file, stored in the data storage unit (110), onto the memory (130),

(Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user.") and (Par [0057], "FIG. 2 ... As shown in the figure, the information-processing apparatus 1 includes internal core members such as a system controller 21, a CPU (Central Processing Unit) 22, a flash **ROM (Read-Only Memory)** 23 and a D-**RAM (Dynamic RAM)** 24. In addition, the information-processing apparatus 1 also includes an o**peration unit 35**, a display control unit 27 and a display unit 2, which each serve as a **basic interface with the user**.").

- and a file storing process of storing a predetermined data file, spread on

the memory (130), into the data storage unit (110);

(Par [0016], "...the information communication system automatically saves an application program or a **data file stored in the storage means** to the server or an external recording medium on the communication network in order to allocate a free storage...").

- and a program executing unit (150), executing,

(Par [0144], "At the next step F303, the CPU 22 **executes the application program** to carry out processing based on the program.").

- based on an operation of a logged-on user, a predetermined application program and a process of preparing a new data file on the memory (130) or a renewing process on an existing data file spread on the memory (130);

(Par [0138], "The application program AP3 and the **data file** DT3 thereof are **saved in the saved-information storage unit 136.** As a result, since empty areas are created in the D-RAM 24 as shown in FIG. 9, the **application program** AP-a and the **data file** ... storage areas.") and (Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user.").

- is shared by a plurality of users, the method for ensuring security in information processing apparatus being characterized in making the information processing apparatus (100) perform:

(Par [0106], "The user data base 132 is a member for storing data of **users** registered as recipients of services rendered by the server 130 to download programs to the information-processing apparatuses 1.")

- a saving step of executing, <u>when a specific user executes a logoff procedure,</u> a saving object recognizing process of recognizing, from among data files stored in the data storage unit (110), all or a predetermined portion of data files prepared or renewed based on tasks by a specific user as a saving object file or files,

(Abstract and Claim 11, "...the step of : storing ...") and (Par [0114] The saved-information storage unit 136 is a storage member which is used for saving data from the DRAM 24 employed in the information-processing apparatus 1 in accordance with a request made by the information-processing apparatus 1 ....")

- a saving process of copying and thereby saving the saving object file or files into an external storage device (300) via a network (200),

(Abstract, "...automatically transfers application programs and data files from the storage means to an external recording medium such as the server itself...") and (Par [0016], "...an external recording medium on the communication network...")

- ***a deleting process of deleting the saving object file or files stored in the data storage unit (110), a management information preparing process of preparing management information necessary for copying and restoring the saving object file or files, saved in the external storage device (300), into the data storage unit (110),***

(Abstract and Claim 4, " The information-processing apparatus according to claim 1, wherein if an **application program or a data file** saved in said external recording medium exists at completion of use **... to delete** said active application program from said storage means in order to **restore said saved application program or saved said data file** from said external recording medium to said storage means by way of said communication means.").

- ***and a management information storing process of storing the prepared management information into an external storage location (400);***

(Abstract and Claim 2, "...activation-history **management means for storing information** on an activation history for each application program and for updating said information on an activation history for a specific application program upon activation of said specific application program by said processing means; wherein said control means selects an application program **to be saved to said external recording medium** on the basis of said information on an activation history.").

- ***and a restoring step of executing, as necessary after the specific user executes the logon procedure, a restoring process of referencing the management information and thereby copying and restoring the saving object file or files, saved in the external storage 6 device (300), into the data storage unit (110).***

(Par [0175], "In the mean time, the processing carried out by the server controller 131 goes on to a **step F115 to form a judgment as to whether or not a request for restoration** of saved data has been received from the information processing apparatus

1...") and (Par [0017], "In addition, if an **application program or a data file** saved in the external recording medium exists at completion of use of an active application program downloaded from the external server or at the time when the user finishes using it and carries out predetermined operation, the **application program is deleted from the storage means** in order to **restore the saved application program or the saved data file** from the external recording medium to the **storage means and reestablish** a state prior to downloading.") and (Par [0107], "**Data of a user** includes ...the password of the user, the **log-in ID** of the user and the equipment serial ID **assigned to the information-processing apparatus** 1 used by the user.").

However Kishimoto does not disclose the underlined claimed features:

- a logoff procedure concerning said predetermined user is performed *(1);*

- when a specific user executes the logoff procedure *(2)*

On the other hand Clark discloses the claimed features as follow:

- a logoff procedure concerning said predetermined user is performed (1);

- when a specific user executes the logoff procedure(2)

(Par [0637], "In one embodiment, the synchronization service does not provide its own ... This utility makes it very easy to configure the **Windows Scheduler to run synchronization either on schedule, or in response to events such as user logon or logoff.").**

Neither Kishimoto nor Clark disclose:

> ***A method for ensuring security of data according to each individual user when an information processing device (100),***

On the other hand Yano discloses the claimed feature as follow:

A method for ensuring security of data according to each individual user when an information processing device (100).

(Par [0010], "Embodiments of the present invention provide an information-processing apparatus and a user-switching **method**, both can accomplish the switching of user with **high security**.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to incorporate the teachings of Clark and Yano into the method of Kishimoto to take advantage of executing a specific procedure after logging off and use a dividing process . The modification would have been obvious because one of the ordinary skills in the art would implement this to keep a system updated depending on user changes throughout logging in and out from the apparatus and enforce security according to each user's data.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Ruiz whose telephone number is (571) 270-3158. The examiner can normally be reached on 7:30 a.m. to 5:00 p.m., ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on (571) 272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR

SR Pannala

SATHYANARAYAN PANNALA
PRIMARY EXAMINER